

1 **ABSTRACT**

2 In the described embodiment, methods and systems for processing facial
3 image data for use in animation are described. In one embodiment, a system is
4 provided that illuminates a face with illumination that is sufficient to enable the
5 simultaneous capture of both structure data, e.g. a range or depth map, and
6 reflectance properties, e.g. the diffuse reflectance of a subject's face. This
7 captured information can then be used for various facial animation operations,
8 among which are included expression recognition and expression transformation.

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